

REMARKS

Upon entry of the instant amendment, claims 1-9 are pending. Claims 1, 5 and 7 have been amended . It is respectfully submitted that upon entry of the amendment and consideration of the remarks below that the application is in condition for allowance.

CLAIM REJECTIONS – 35 U.S.C. § 102

Claims 1, 2 and 4-7 have been rejected under 35 USC § 102(b) as being anticipated by Nagai US Patent No. 5,216,371 (“the Nagai patent”). In order for there to be anticipation, each and every one of the elements of the claim. It is respectfully submitted that the claims recite subject matter not disclosed or suggested by the Nagai patent. For example, the claims recite that the battery charge indication signals are based upon a comparison of the charging current with predetermined values. The measuring circuit 30 disclosed in the Nagai patent, being relied upon by the Examiner, teaches away from the sensing circuit recited in the claims at issue. Specifically, the Nagai patent teaches a measuring circuit 30 that includes an integrator 32 for integrating the charging current with respect to time to generate a signal based upon the charge not current of the battery. As is well known in the art and also discussed in the Nagai patent, charge is the time integration of charging current. More particularly, the circuit in the Nagai patent generates the charge signal by integrating the charging current over time. (“...a measuring circuit which comprises a current detecting circuit 30 for detecting the value of recharge current or discharge current, an amplifier 31 for the amplification of the output signal of the current-detecting circuit 30, an arithmetic circuit 32 for integrating the value of current every unit time, etc., a timer 33 for generating a signal for defining the unit time for the *integrating* operation, and a random-access memory (RAM) 34 for holding integrated data, etc.” Nagai patent, Col. 4, lines 53-60).The Nagai patent does not disclose comparing the charging current to predetermined values to generate a signal indicative of the state of charge of the battery . As such, it is respectfully submitted that the Nagai patent does not anticipate or suggest the circuit recited in the claims. The Examiner is thus respectfully requested to reconsider and withdraw the rejection of these claims.

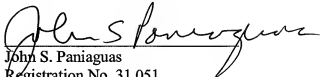
CLAIM REJECTIONS – 35 U.S.C. § 103

Claims 1, 2 and 4-7 have been alternatively rejected under rejected under 35 U.S.C. § 103(a) as being unpatentable over Ng US Patent Application Publication No. US 2005/0089750 A1 (“the Ng publication”) in view of Sasaki et al US Patent No. 5,172,044 (the Sasaki patent”). It is respectfully submitted that the claims, as amended, recite subject matter not disclosed or suggested by either the Ng publication or the Sasaki patent. In particular, the Ng publication relates to a temperature control apparatus for lithium batteries. It does not otherwise disclose a measuring circuit. As such, the Ng publication clearly does not support a rejection under 35 USC § 103 of Claims 1, 2 and 4-7 by itself. The Sasaki patent likewise does not disclose providing a signal representative of the state of charge of a battery by comparing the charging current to a predetermined value. Rather the Sasaki patent teaches the use of a charging current detecting **circuit** as illustrated in Fig. 6B that includes a charge control circuit 10. The reference on page 5 of the Detailed Action relates to the circuit illustrated in Fig. 6B of the Sasaki patent. For these reasons, the Examiner is respectfully requested to reconsider and withdraw this rejection.

Claims 3, 8 and 9 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over the the Nagai patent further in view of Matsunaga et al US Patent No. 5,216,371 (“the Matsunaga et al patent”) and the Sasaki patent. The Nagai and Sasaki patents were discussed above. The Matsunaga et al patent was cited for disclosing various LEDs. It does not otherwise disclose a measuring circuit as recited in the claims at issue. For these reasons and the above reasons, the Examiner is respectfully requested to reconsider and withdraw this rejection.

Respectfully submitted,

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